1994. POSTER. Page 3 *in* The Wildlife Society *First* Annual Conference Abstracts (September 20-25, 1994, Albuquerque, New Mexico)

AVERY, MICHAEL L., KRISTIN E. BRUGGER, and REBECCA L. DARNELL. Managing bird damage to fruit crops by manipulating fruit sugar composition. USDA/APHIS, Denver Wildlife Research Center, 2820 E. University Ave., Gainesville, FL 32601 USA. (MLA). DuPont Agricultural Products, Experiment Station, Wilmington, DE 19880 USA. (KEB). Horticultural Sciences Dept., University of Florida, Gainesville, FL 32611 USA. (RLD).

Bird damage to small fruit and berry crops results in annual losses of millions of dollars. Except for netting, no existing technique is consistently effective against fruit-eating birds. Because common fruit pest species such as European starlings (*Sturnus vulgaris*) and American robins (*Turdus migratorius*) lack the enzyme needed to digest sucrose, it may be possible to develop bird-deterrent cultivars of small fruits such as blueberries and strawberries by elevating the sucrose level. The utility of this concept is supported by feeding trials in which captive starlings and robins consistently avoided sucrose concentrations of >11%. Furthermore, plant physiological studies indicate that development of high-sucrose cultivars is feasible. Research is continuing in order to identify means to exploit this long-term approach to bird depredation management.